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ABSTRACT

In order to measure the effectiveness of Johnson County Community College's (JCCC's) transfer function and to examine an overall approach to research on institutional effectiveness, this paper applies Jeffrey A. Seybert's (1990) Effectiveness Assertiveness Matrix (EAM) to a transfer follow-up survey conducted at JCCC (Kansas) and to a 1984-85 Kansas statewide transfer study. Introductory material describes the challenges of demonstrating institutional effectiveness for community colleges, explores the particular problems associated with assessing the transfer function, and lays out the conceptual components of the EAM. The Matrix's two dimensions (i.e., internal vs. external audiences and student vs. institutional variables) are examined, yielding the following multiple indicators of community college effectiveness: (1) internally-directed student measures (e.g., satisfaction of individual educational objectives); (2) externally-directed student measures (e.g., performance on professional licensure exams); (3) internally-directed institutional measures (e.g., results of program reviews); and (4) externally-directed institutional measures (e.g., employer evaluations of student preparation). Next, the paper identifies seminal questions regarding transfer and, by applying the EAM, determines that the appropriate data elements and measures to answer these questions can be obtained by using JCCC's transfer student follow-up survey and the Kansas statewide survey which compared transcripts/reports of transfer and native students at senior institutions. Though the bulk of the paper focuses on the use of the EAM in analyzing the two studies, methodology and results of each study are also summarized. The report concludes with recommendations gleaned from study results and with a discussion of the strengths of the EAM approach to assessing institutional effectiveness. (JMC)

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Assessment of Institutional Effectiveness in Community Colleges: The Transfer Function

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INTRODUCTION

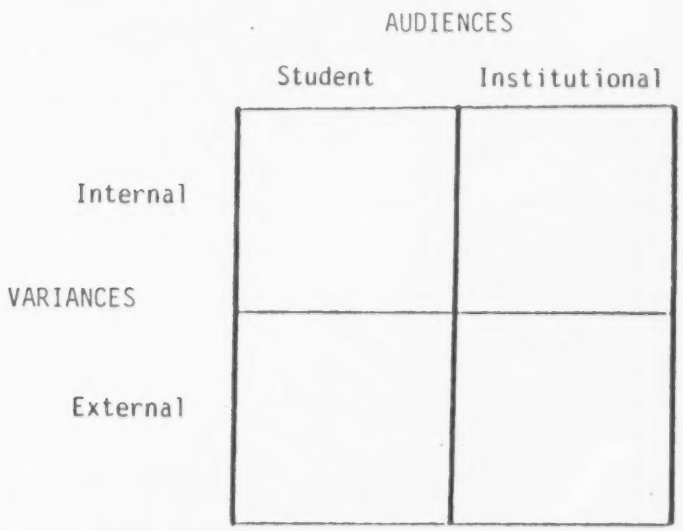
Demonstrating institutional effectiveness takes on special significance for community colleges. Community colleges typically have a much broader mission than four-year colleges and universities. In addition to traditional freshman/sophomore level coursework, community colleges provide career training, occupational retraining, remedial/developmental coursework, community/continuing education programs, courses for special populations, and a variety of other educational offerings. It is preparation for transfer, however, which has recently generated considerable national attention, and no small amount of controversy, particularly in the popular press.

Community colleges are being challenged to demonstrate that they are accomplishing their mission to provide transfer-oriented education for students (e.g., Brint & Karabel, 1989). In part this attention results from rising concerns about the extent to which minorities participate and achieve success in higher education, though general questions of accountability and accomplishments exist as well. Two factors have placed colleges at a disadvantage in responding to questions about transfer. One factor is that the definition of "effectiveness" itself is subject to multiple interpretations. Among measures that can be used are: transfer rates (however defined), completion of bachelors degrees, quality of academic performance after transfer, number of courses/credits that transfer, and student satisfaction with preparation for transfer. As this simple list makes evident, transfer effectiveness is a complex concept that is not readily or easily measured (Bers, Seybert, & Friedel, 1990). The second factor contributing to the inability of colleges to provide reasonable answers to

transfer effectiveness questions is the paucity of data about transfer and the tremendous variation in data that are available.

In response to these and other issues which have arisen regarding assessment and demonstration of community college institutional effectiveness, Seybert (1990) has proposed an Effectiveness Assessment Matrix (EAM) as a conceptual framework to organize and guide community college institutional effectiveness assessments efforts. Basically, this model identifies two dimensions (internal vs. external audiences and student vs. institutional variables) which, when combined, create four classes or categories of effectiveness assessment measures. Thus, this model stresses the importance of both multiple measures and examination of the institution from several different perspectives to determine its overall effectiveness.

An explication of the model is as follows:



Completion of the cells of the matrix yields the following categories of measures of community college effectiveness:

Internally-Directed Student Measures:

- Satisfaction of individual educational objectives
- Program completion or receipt of degree or certificate
- Individual course grades, overall GPA's
- Student performance on assessments of cognitive outcomes
- Student perceptions of noncognitive outcomes

Externally-Directed Student Measures:

- Student performance on professional licensure exams
- Transfer student success in the receiving college/university (in terms of course grades, progress toward and receipt of degree)
- Career student success (in terms of obtaining appropriate employment, career advancement, and career satisfaction)

Internally-Directed Institutional Measures:

- Results of systematic, comprehensive program reviews
- Analysis of course grades and retention/attrition rates
- Results of client/user (i.e., students, faculty, staff) evaluations of programs and services
- Student evaluations of instructors/counselors/advisors

Externally-Directed Institutional Measures:

- Results of employer evaluations of career student preparation
- Results of external image surveys
- Results of economic impact studies

Seybert (1990) has provided additional detail and discussion of the model which need not be reiterated here. It should be noted, however, that while the primary purpose of the EAM was to explore and elaborate possible measures of effectiveness, there are additional factors which need to be taken into consideration in formulating an overall effectiveness assessment plan.

While the EAM does provide a useful context or framework within which to consider possible assessment measures, actual determination of an institution's effectiveness needs to be focused on the specific missions of that institution. This implies that there is not one "best" or "ideal"

overall effectiveness assessment model or plan for all two-year institutions. Rather the best (most appropriate) model for a given college will be determined by the major components of that institution's mission. The contention here, then, is that each institution should tailor and focus its effectiveness assessment plan to its particular mission, rather than attempting a wholesale adoption of an existing external model.

Such a focusing process consists of three major steps. First the institution must identify the major components of its mission, i.e., those things that it has publicly stated it intends to do and for which it thus needs to assess its effectiveness. Second, a series of questions which will guide the assessment process needs to be generated regarding each mission component. Third, the four measurement categories subsumed in the EAM should be applied to these questions to determine which of the categories and measurement techniques is (are) most appropriate to provide data to answer each question.

Assessment of the Transfer Function

A major mission of many (if not most) two year colleges is the preparation of students to transfer to four-year colleges and universities. Indeed, it is widely held that the historical roots of today's community colleges lie in this transfer function (e.g., Brint & Karabel, 1989). Thus, it is the purpose of the remainder of this paper to apply the approach outlined above to the transfer mission and to present initial results of assessments based on that approach.

Having accomplished the first step described earlier, i.e., identification of the transfer function as a major mission (or component of the college

mission), the next step is to identify seminal questions regarding transfer. Examples of such questions might be:

1. Do transfer students accomplish community college educational objectives?

2. How do transfer students evaluate community college experiences and services?

3. Do transfer students transfer?

4. Do transfer students succeed at recipient institutions?

It is likely that other relevant questions might also be formulated, for example regarding the efficacy of an institution's articulation agreements with senior institutions. For the purposes of this paper, however, we will consider the four questions listed above.

The final step is to apply the EAM to the identified questions to determine the appropriate data elements and measures to be used to provide answers to those questions. In this case application of the EAM to the four questions delineated above suggests that the appropriate elements lie in the Internally- and Externally Directed Student Measures cells of the matrix. Specifically, these questions can be answered through the use of former transfer student follow-up surveys and transcripts/reports from senior institutions.

This paper will report the results of the application of this three-step - process which produced in two studies designed to gather data to assess the

effectiveness of the transfer function. These studies were a survey of former community college students who transferred to senior institutions, and a statewide study which examined records from the public senior institutions in the state regarding students who had transferred from all of the state public community colleges.

JCCC TRANSFER FOLLOW-UP SURVEY

The Office of Institutional Research at Johnson County Community College (JCCC) conducts an annual follow-up survey of students who attended the college during the previous academic year and subsequently transferred to a four-year college or university. The following outlines the implementation and results of the 1990 transfer follow-up survey.

Method

The target population of 1,277 JCCC transfer students was identified by a combination of methods. First, a list of all active and former JCCC students who requested transcripts during the 1988-89 academic year was obtained from the Admissions Office. Early in the spring semester postcards were sent tot these individuals requesting initial information to identify those who had actually transferred to four-year colleges or universities or intended to transfer by the close of the spring semester. Second, lists of students who had transferred from JCCC were obtained from 11 of the 17 recipient institutions to which most JCCC students transfer. Finally, information from both the postcards and the list were merged and duplicates were eliminated.

Individuals so identified were sent a mailed survey in March and a follow-up survey approximately one month later. The survey included questions concerning the following areas:

- JCCC enrollment history
- Educational goal attainment information
- Evaluation of both cognitive and affective outcomes
- Evaluation of educational and support services
- Overall evaluation of JCCC experiences
- Current educational status
- Demographics

A total of 502 completed surveys were received (292 from the initial mailing and 210 from the follow-up mailing) for an overall response rate of 39.3 percent.

In addition to the survey data current student information, including data on academic progress (e.g., number of hours attempted, number of hours completed, and cumulative GPA) were supplied for each student by the transfer institutions. Both these and the survey data were included in the data analysis file.

Results

A preliminary description of the results of the 1990 JCCC transfer follow-up survey have been provided elsewhere (Johnson County Community College, Office of Institutional Research, 1990) and will be summarized here.

Educational Goal Attainment. As has been argued elsewhere (Seybert, 1990), student achievement of educational objective is a primary index of community college effectiveness. Thus, an important component of the JCCC transfer follow-up survey deals with this issue. Table 1 illustrates the data

Insert Table 1 Here

regarding achievement of educational objective and it is clear that most students who transferred during 1989-90 did so. More than 92 percent of the respondents indicated that they completely or partially achieved their educational objective at JCCC.

College Experiences/Affective Outcomes. The JCCC transfer follow-up survey asks a series of questions regarding students' experiences at the college. Many of these items are also designed to glean information regarding students' perceptions of the affective outcomes of their college experiences. Survey responses regarding these items can be seen in Table 2.

Insert Table 2 Here

As is clear from the table, a majority of respondents reported gains or improvements in all of the areas. For example, nearly three out of four indicated that JCCC had helped them to improve their written communication skills and approximately two-thirds indicated that their experiences at JCCC had helped to broaden their knowledge of the arts and sciences and enhance their self-confidence. Roughly 64 percent of the respondents reported that their JCCC experiences had helped them expand their tolerance for people and ideas and over 60 percent felt that their experiences at JCCC and helped them to improve their oral communication skills. More than half indicated that their JCCC experiences had helped them to clarify personal values and goals and to improve in the areas of time management, decision-making, and interpersonal skills.

The survey also includes several items dealing with students' overall reactions to JCCC; these data are displayed in Table 3. Over 80 percent

Insert Table 3 Here

indicated that apart from any financial benefit, JCCC had helped improve the quality of their life. Eighty-seven percent indicated that they would attend JCCC again and nearly 93 percent would recommend JCCC to friends.

Relative Satisfaction. The survey also includes a series of items regarding former transfer students' evaluations of a variety of educational and support services both at JCCC and the senior institution to which they transferred. These data can be seen in Table 4. A majority of respondents expressed

Insert Table 4 Here

satisfaction with all services at the community college except job placement and availability of financial aid. Importantly, more than two-thirds were satisfied with the way the college prepared them for their transfer experiences.

On a comparative basis, the level of satisfaction with various aspects of college was greater at JCCC than at the four-year college or university attended, particularly with regard to the registration process, helpfulness and individual attention to faculty, and convenience of class scheduling.

A greater percentage of respondents expressed satisfaction with job placement services, availability of financial aid and the variety of courses at the four year college or university attended than at JCCC.

Discussion

The results of the transfer follow-up survey reported here answer two of the basic questions posed earlier regarding the effectiveness of transfer preparation at JCCC. Specifically, the large majority of these former students indicated that they achieved their educational objective at the college. In addition, in most cases they provided positive evaluations of their experiences and services received and indicated that they had grown in a variety of cognitive and noncognitive areas. Thus, the results of the survey provide important evidence that, at least for some aspects of the transfer mission, the college is, indeed, "effective." It must be noted, of course, that there are still other components of the transfer function which this survey did not address, some of which will be dealt with in the study which follows.

On a second level, the fact that a survey of this type provides answers to some of the basic questions regarding the transfer mission suggests that the overall institutional effectiveness assessment model proposed here may be a useful way to organize and provide a conceptual framework for such assessment efforts.

STATEWIDE TRANSFER STUDY

In 1984-85 the Office of Institutional Research at Johnson County Community College coordinated an initial statewide study of former Kansas community college students enrolled in Kansas regents universities (Johnson County Community College, Office of Institutional Research, 1985). The study was

designed to examine student movement between the nineteen community colleges and seven regents institutions, describe those students' characteristics, determine their students' academic performance at the universities, and compare that performance to that of native university students, as well as other variables. The office conducted a second study in 1987 (Johnson County Community College, Office of Institutional Research, 1991) to confirm and add to the original findings as well as rectify shortcomings in the methodology and data in that study. This paper will highlight the major findings of these studies to illustrate the manner in which such studies fit into the overall effectiveness assessment approach proposed earlier.

Method

This project employed a three-part quantitative/qualitative methodology. First, in order to determine the characteristics and degree of movement of students from Kansas community colleges to the state universities, each state university identified all enrolled students who had indicated that a Kansas community college was the last educational institution they had attended prior to enrolling in the university. Each state university then provided selected demographic and academic characteristics for these students for seven fall semesters from fall, 1979 through fall, 1985, including the following: sex, age, ethnic/racial category, level, university college/school, transfer credit hours, composite ACT scores, credit hours completed at the university, and university grade point average.

The second part of the project employed a retrospective, longitudinal methodology involving selection of groups of both native university and Kansas community college transfer students. Two pairs of groups of native university

students (those who had not previously attended another college or university, Nat1 and Nat2 defined below) and transfer students (who had most recently attended a Kansas community college) were selected at comparable points in their academic careers. In the latter case, the design specified that each state university was to randomly select two study groups of 50 former community college students each (CC1 and CC2 defined below) from a list of all students who met the selection criteria. Five of the seven state universities were able to meet this specification.

Students selected within each group were then followed up to ten semesters (or through the equivalent of their sixth academic year of college study), and each group's average academic progress, performance, graduation and persistence rates were observed. Comparisons were then made between the paired groups of native university and community college transfer students on these performance criteria.

The two pairs of study groups were defined as follows:

Native University 1 (Nat1): A student enrolled for 12 or more credit hours during the fall of 1980, listing a Kansas high school as the institution last attended, having transferred zero credit hours from another college or university, and having completed 24-36 credit hours at the university of residence.

Community College Transfer (CC1): A student enrolled for 12 or more credit hours during the fall of 1980, listing a Kansas community college

as the institution last attended, and having transferred a total of 24-36 credit hours to the university of residence.

and

Native University 2 (Nat2): A student enrolled for 12 or more credit hours during the fall of 1981, listing a Kansas high school as the institution last attended, having transferred zero credit hours from another college or university, and having completed 54-66 credit hours at the university of residence.

Community College Transfer 2 (CC2): A student enrolled for 12 or more credit hours during the fall of 1981, listing a Kansas community college as the institution last attended, and having transferred a total of 54-66 credit hours to the university of residence.

The Nat1 and CC1 groups were selected in the fall of 1980 and followed each succeeding fall and spring semester through spring, 1985; the Nat2 and CC2 groups were selected in the fall of 1981 and followed each succeeding semester through spring 1985.

Finally, the purpose of the third component of the project was to interview community college transfers enrolled at the state universities to determine their perceptions of and explanations for the previously obtained results.

The project design called for the state universities to identify all community college transfer students who would have qualified for inclusion in the previously noted study groups (CC1 and CC2) had the initial comparative study

been conducted during their attendance at the university. Since the purpose of this component was to interview community college transfers still enrolled in the state university, the initial time frame was adjusted. Rather than students transferring to the university in fall 1980 or fall 1981 respectively, each state university was to select 50 students for each of two groups randomly from a list of all transfers who would have entered the university in the fall of 1983 or 1984 and also met the selection criteria. Selection criteria other than year of matriculation were the same as for the CC1 and CC2 groups in the second part of the project.

Each of these students was subsequently asked for their voluntary participation in either a group or personal interview concerning their experiences at both the community college and the state university. Volunteers at three universities were interviewed in group settings, using focus group interviewing techniques, and volunteers from two other universities were interviewed individually by telephone. In all, 33 former community college students enrolled in a state university in the spring of 1986 were interviewed. Four group interviews involved a total of 25 community college transfers, and eight individual telephone interviews were conducted. All interviews were audio-recorded and a verbatim transcript prepared from the recordings.

The interview protocol contained items regarding students' transfer plan, reasons for enrolling at the community college, evaluation of community college experiences, reactions to their first semester after transfer and comparisons with their first semester at the community college, the major differences between the community college and state university, the relative advantages of beginning their postsecondary education at the community

college, and any advice they might have for younger friends and community college and university administrators.

Results

As was the case for the JCCC transfer follow-up survey, a preliminary description of the results of this project have been reported elsewhere (Johnson County Community College, Office of Institutional Research, 1991) and will be summarized here.

Part 1. The demographic overview of Kansas community college transfer students is are shown in Table 5. As can be seen in the table, the number of

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Insert Table 5 Here

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students enrolled in the state universities who had previously attended a Kansas community college increased dramatically from fall 1979 through fall 1985. By fall 1985, the number of former Kansas community college students enrolled in the state universities had increased to 10,869 students, or nearly 19 percent of their total undergraduate enrollment.

With one major exception, basic demographic and academic characteristics of former community college students enrolled in the state universities did not change appreciably from fall 1979 to fall 1985. The students' average age, ACT score, grade point average, and course load at the university changed little over the span of the project. However, the number of credit hours that they completed at the community college and transfered declined markedly from fall 1979 to fall 1985.

Part 2. This second part of the project examined comparative academic performance, progress, graduation, and persistence rates of community college transfers and native university students.

The data comparing academic performance (in terms of grade point average) and progress (in terms of average credit hours earned per semester) are displayed in Table 6.

Insert Table 6 Here

The academic performance of both groups of community college transfers was somewhat lower during their first semester at the university than that of their native university counterparts. The first semester GPA's earned by community college transfers represented declines of .48 and .57 of a grade point from the cumulative grade points earned at the community college (for CC1's and CC2's, respectively). This drop of approximately one-half of a grade point upon transfer from a community college to a university has been documented in numerous other studies, and is one manifestation of the phenomenon commonly referred to as "transfer shock."

However, transfer students' performance, as measured by grade point average, improved each subsequent semester, and the GPA's of both transfer and university natives were essentially the same by the end of their academic careers (i.e., in the spring semester of their senior year).

The academic progress of community college transfers and their native university counterparts was virtually identical. All four study groups earned

an average of 13 to 14 credit hours per semester at the university. The small variations among groups did not indicate a pattern consistently favoring either university natives versus transfers, or CC2's versus CC1's.

The persistence rates of the four groups in the study are shown in Table 7.

Insert Table 7 Here

Former community college students, both those who transferred after one year at the community college and those who transferred after two years, persisted at the university--that is, remained enrolled or graduated--at substantially lower rates than students who had begin their academic careers at the university. The table indicates that 79.4 percent of those university natives beginning their sophomore year graduated or persisted for up to eight additional semesters, and 88.0 percent of juniors graduated or persisted for up to six additional semesters. Community college transfers' persistence rates remained substantially lower than those noted above for the comparable native university study groups, at 56.0 percent and 70.4 percent, respectively.

The study also confirmed that attrition in the fist year of residence at the university by former community college students accounted for most of the discrepancy between persistence rates of transfers and natives. Over 30 percent of students who had transferred from the community college after one year failed to persist into a second year at the university; only 15 percent of a comparable groups of native university students failed to persist. Similarly, nearly 25 percent of those who had transferred after two years at the community college left the university before their second year there,

compared to just 10 percent comparable attrition between junior and senior year among a comparable group of university natives. However, no comparable data were available for native university students' attrition patterns in their first year of attendance. It is possible that their attrition during this period would be comparable to that of the CC1 transfer students during their first year at the university.

Graduation rates of the four study groups are displayed in Table 8. It is

Insert Table 8 Here

clear from the table that community college transfers graduate at substantially lower rates than university natives studied at comparable points in their academic careers. For the Nat1 and Nat2 groups graduation rates after five years from the date of matriculation were 57.8 percent and 64.7 percent, respectively. For community college transfers, however the comparable rates for the CC1 and CC2 groups were 40.0 percent and 56.3 percent, respectively.

Results also indicated that the differences in graduation rates were most striking in the first year. After initially lagging well behind their university counterparts in earning degrees, community college transfers began to catch up. Once again, the substantial first-year attrition among community college transfers appeared to account for the differential rates of graduation among the groups.

The project also followed community college study groups for two additional semesters. For both CC1's and CC2's, by the end of the additional year, their

rates of graduation were much more comparable to those previously documented for the native university comparison groups. However, an additional year of data was not available for the native groups, so no direct comparisons could be made.

Part 3. The third part of the project consisted of interviews of community college transfers enrolled at the state universities to determine their perceptions of their community college and university and also to attempt to explain the results obtained in parts 1 and 2.

The principal results of this part of the project were gleaned from a detailed analysis of these recorded interviews. Their contents were translated into numerical counts for key questions, which concerned students' motivations for attending a community college, their evaluations of their community college experiences, their subsequent experiences at a state university, and their final assessment of their academic careers, including advice to prospective students and suggestions for improvements to the leadership of Kansas community colleges and state universities.

Because of the nature of the interview data collected, the tabled data include a "no response" category to account for missing or unidentified responses that could not be directly attributed to an individual interviewed; this difficulty occurred most often in group interviews. To compensate, all results are also reported as a percentage of responses.

The data regarding students' motivations for attending a community college

prior to transferring are shown in Table 9. These data reveal that the

Insert Table 9 Here

substantial majority of students interviewed attended a community college for pragmatic reasons including financial considerations, because they wanted to stay close to home, or because they felt they were not ready to enroll in a university. Most of these students reported initial plans to transfer but were uncertain regarding a major.

Table 10 reflects students' reported problems in making the transition from

Insert Table 10 Here

the community college to the university. Most admitted that they experienced difficulty in adjusting to the state university, particularly during the first semester after transfer. The students identified a range of problems, though poor academic advising at the university, more rigorous classes, and feelings of social isolation were the most frequently mentioned difficulties. These findings provide additional support for the transfer shock problem discussed above.

Table 11 illustrates students' evaluations of their community college

Insert Table 11 Here

experiences as well as advice they would give community college and university administrators and younger friends. Despite having problems during their initial semester at the state university, most of the community college

transfers interviewed were positive about their community college experiences. Three-quarters rated their community college experiences positively, responded that the community college had prepared them for the university, and indicated that they would attend the community college again if asked to plan their educational careers all over.

When asked to advise prospective college students and to offer suggestions for improvements to the educational leadership of Kansas community colleges and state universities, interviewees responded with advice and recommendations consistent with their previously noted evaluations of their educational experiences. Approximately three-fourths would advise a younger friend to attend a community college before transferring to a state university. University administrators were advised to improve advising and orientation; community college administrators to improve advising and to increase the rigor of community college course and program requirements.

Interviewees' responses regarding the course of their academic careers are summarized in Table 12. Overwhelmingly, they responded that they did not

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Insert Table 12 Here

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anticipate graduating "on schedule," that is, within four years of starting their higher education at the community college. When asked to account for delayed graduation, most blamed themselves for taking less than full course loads some semesters (37.5 percent), changing majors (16.7 percent), or failing or dropping courses (12.5 percent). Still, the second most frequently mentioned reason for failing to graduate within four years was the loss of credit hours in transfer or due to bad academic advising.

Discussion

This project was designed and conducted with two major purposes in mind. The first was to determine the number and characteristics of students who move from community colleges to the state universities in Kansas and how these have changed over time. Second, the project sought to compare academic performance, progress, graduation, and persistence rates of community college transfers and their native university counterparts.

The results of the project demonstrated that the number of students moving from the community colleges to the state universities in Kansas was large and growing. In the fall of 1985, nearly 11,000 former community college students were enrolled in the state universities, constituting over 19 percent of the undergraduate enrollment. Most characteristics of these students did not change appreciably from 1979 to 1985. The major change which was observed was that students completed fewer hours at the community college before transferring. The data also suggested that increasing numbers of students with apparent intentions to enroll in state universities began their college careers at a Kansas community college, and that greater percentages of community college students subsequently transferred to state universities.

Academic performance (as measured by cumulative grade point average) and progress (as measured by cumulative hours earned toward a degree) of the community college and native university students studied were essentially the same. However, native university students persisted and graduated at higher rates than their community college counterparts. Those community college transfers who persisted through their first year at the university persisted

and graduated at rates comparable to native university students, but a substantial number and percent of former community college students left the university before completing their first year.

A substantial majority of the community college transfers interviewed attended a community college for pragmatic reasons, but planned to eventually transfer to a four-year university to earn a bachelor's degree. Most of the interviewees admitted that they experienced difficulty in adjusting to the state university, particularly during the first semester after transfer. They identified a range of problems, though poor academic advising at the university, more rigorous classes, and feelings of social isolation were the most frequently mentioned difficulties.

Despite having problems during their initial semester at the state university, most of the community college transfers interviewed were positive about their community college experiences. Three-quarters rated their community college experiences positively, felt the community college had prepared them for the university, and indicated that they would attend the community college again if asked to plan their educational careers all over.

CONCLUSIONS

A major conclusion of the research reported here is that while community college transfers and native university students demonstrate essentially equivalent academic performance, community college transfers persist and graduate at lower rates than do their native university counterparts. This difference was shown to be largely a function of "transfer shock," the difficulty and resulting attrition experienced by many transfer students

during their first year at the university. It should be noted that this difference in persistence may be mitigated by data describing persistence/attrition rates for native university students in their first year at the university. However, native university students first-year experiences were not the focus of the project and thus such data were not available for analysis.

Thus, these findings suggest that appropriate efforts should be made to improve, wherever possible, the orientation and socialization of community college transfer students at the state universities, and to facilitate the articulation of academic programs among these institutions. A variety of mechanisms might be examined that offer the potential to smooth the uninterrupted transition of students from the community college to the university and, particularly, to improve transfer students' retention through the first year at the university.

More generally, the results of these studies provide initial answers to the four major questions posed earlier to assess the effectiveness of the transfer function. The first study demonstrated that, at least at one large comprehensive community college, transfer students generally achieve their educational objectives and provide positive evaluations of their community college experiences and the services they received.

The results of the second project revealed that, on a statewide basis, students are transferring in increasing numbers and constitute a growing segment of undergraduate enrollment at the state universities. In addition, the majority of those students are ultimately successful at the university level, although those success rates could be improved by actions of both the community college and the universities.

While the methodologies employed here have provided valuable information regarding the effectiveness of the transfer function, it is clear that they are by no means complete, and need to be improved. The second project, for example, should be expanded to include all state universities and also recast slightly to provide data by individual community colleges in addition to aggregated results from all the community colleges in the state. Such efforts are currently being initiated and in spite of these shortcomings, these studies represent an important step forward as community colleges attempt to assess the effectiveness of their various missions.

Finally, the results of these studies also indicate that the overall framework proposed in this paper, that is, articulation of seminal questions regarding a college's identified mission and subsequent application of the EAM to identify specific measures which correspond to those questions, may be of considerable value as a conceptual model within which to frame efforts to assess the institution's effectiveness. In addition, the overall approach suggested here may also provide a fruitful context for further applied and basic research on institutional effectiveness in general.

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Table 1

JCCC EDUCATIONAL OBJECTIVE

	Number of Responses	Percent
Original Primary Educational Objective at JCCC		
Prepare to transfer	412	82.1%
Explore career possibilities	17	3.4
Prepare to enter job market	16	3.2
Remedy or review basic skills	10	2.0
Study topics of interest/self-improvement	9	1.8
Prepare to change careers	7	1.4
Improve skills for present job	5	1.0
Other/unknown	26	5.2
Achieved Ultimate Educational Objective at JCCC		
Yes, completely	267	53.2%
Yes, partially	196	39.0
No	38	7.6
Unknown	1	0.2
JCCC Helped Achieve Objective		
Yes, completely	391	84.4%
Yes, partially	60	13.0
No	5	1.1
Unknown	7	1.5

Table 2

PERCEPTIONS OF JCCC EXPERIENCES

	JCCC Should Have Helped With This				JCCC Did Help With This			
	Number of Responses	Agree	Neutral	Disagree	Number of Responses	Agree	Neutral	Disagree
Broaden knowledge of arts and sciences	428	66.6%	27.1%	6.3%	430	66.7%	26.5%	6.7%
Improve written communication skills	448	82.9	12.5	4.7	454	73.4	20.3	6.4
Improve oral communication skills	428	69.1	24.5	6.3	435	60.2	32.9	6.9
Expand tolerance for people and ideas	433	66.0	27.9	6.0	442	63.7	29.0	7.3
Improve time management skills	432	63.0	30.1	6.9	442	50.9	36.2	12.9
Clarify personal values and goals	426	56.6	32.9	10.6	438	51.2	37.2	11.7
Improve decision-making skills	425	57.1	36.0	6.8	432	51.4	41.0	7.7
Improve interpersonal skills	428	52.1	38.8	9.1	435	53.6	39.1	7.4
Enhance self-confidence	435	65.0	28.3	6.6	442	67.0	27.6	5.4

NOTE: Data were collected utilizing a 5-point scale ranging from strongly agree to strongly disagree. Thus, the "agree" column includes "strongly agree" and "agree" responses combined and the "disagree" column includes "disagree" and "strongly disagree" responses combined.

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Table 3

SATISFACTION WITH JCCC

	Number of Responses	Percent
JCCC Improved Quality of Life		
Definitely	204	40.6%
Probably	200	39.8
Uncertain	63	12.5
Probably not	28	5.6
Definitely not	2	0.4
Unknown	5	1.0
If Starting Now, Would Attend JCCC Again		
Definitely	317	63.1%
Probably	120	23.9
Uncertain	25	5.0
Probably not	29	5.8
Definitely not	8	1.6
Unknown	3	0.6
Would Recommend JCCC to Friends		
Yes	466	92.8%
Unsure	26	5.2
No	9	1.8
Unknown	1	0.2

Table 4

SATISFACTION WITH VARIOUS ASPECTS OF COLLEGE

	At JCCC				At Four-Year College/University			
	Number of Responses	Satisfied	Neutral	Dissatisfied	Number of Responses	Satisfied	Neutral	Dissatisfied
Quality of instruction	495	86.5%	8.5%	5.0%	495	73.6%	16.4%	10.1%
Facilities and equipment	476	84.5	13.4	2.2	471	67.8	19.3	12.9
Convenience of class scheduling	494	84.6	11.3	4.0	492	47.6	20.7	31.7
Variety of courses	493	75.7	16.8	7.5	495	82.6	11.1	6.2
Helpfulness/individual attention of faculty	496	83.9	13.1	3.0	496	58.1	23.2	18.7
Registration process	498	83.5	8.8	7.6	496	44.9	18.5	36.5
Career or transfer preparation	478	67.2	22.0	10.8	339	37.4	55.5	7.1
Academic advisement and counseling	478	62.4	25.3	12.3	486	55.2	20.2	24.7
Job placement services	335	25.6	68.4	6.0	323	28.8	64.4	6.8
Availability of scholarships and financial aid	396	29.8	56.6	13.6	419	43.2	38.4	18.4

NOTE: Data were collected utilizing a 5-point scale ranging from very satisfied to very dissatisfied. Thus, the "satisfied" column includes "very satisfied" and "somewhat satisfied" responses combined and the "dissatisfied" column includes "somewhat dissatisfied" and "very dissatisfied" responses combined.

Table 5

MOVEMENT AND CHARACTERISTICS OF FORMER KANSAS COMMUNITY COLLEGE STUDENTS ENROLLED IN STATE UNIVERSITIES, 1979-1985

	Fall 1979	Fall 1985	Change Number	Change Percent
Total Community College Enrollments	33,791	41,917	+8,126	+24.0%
Total State University Enrollments	57,646	57,973	+327	+0.6%
Former Community College Students Enrolled in State Universities	5,797	10,869	+5072	+87.5%
Former Community College Students as a Proportion of State University Enrollments	10.1%	18.8%	--	+86.2%
Average Age	24.0	22.9	-1.1	-4.6%
Average ACT Composite Score	18.8	19.3	+0.5	+2.7%
Average GPA	2.66	2.60	-.06	-2.2%
Average Transfer Hours	40.2	31.1	-9.1	-22.6%
Average Fall Semester Credit Hours Completed	11.3	12.2	+.9	+8.0%

Table 6

COMPARATIVE ACADEMIC PERFORMANCE (GRADE POINT AVERAGE) AND PROGRESS (AVERAGE CREDIT HOURS PER SEMESTER) OF NATIVE UNIVERSITY AND COMMUNITY COLLEGE TRANSFER STUDENTS

	Nat 1	Nat 2	CC1	CC2
GPA at community college:	NA	NA	2.88	3.11
GPA at university:				
first semester	2.69	2.73	2.40	2.54
spring semester, senior year	2.89	2.83	2.80	2.84
Average credit hours earned per semester at university:	13.9	13.4	13.3	14.4
Number in study groups:	1,549	1,046	125	206

Note: The number of students in the CC1 and CC2 groups reflect those for whom complete data sets were available.

Table 7

COMPARATIVE PERSISTENCE RATES OF NATIVE UNIVERSITY AND COMMUNITY COLLEGE TRANSFER STUDENTS, FALL 1980-SPRING 1985

	Nat 1	Nat 2	CC1	CC2
Number in study group:	1,549	1,046	125	206
Percent persistency:				
Fall 1980	100.0%	--	100.0%	--
Spring 1981	94.4	--	92.8	--
Fall 1981	86.4	100.0	69.6	100.0
Spring 1982	83.6	96.4	68.0	90.8
Fall 1982	80.9	89.3	64.0	76.7
Spring 1983	78.2	87.8	63.2	75.2
Fall 1983	80.3	87.9	57.6	72.8
Spring 1984	79.4	88.0	56.0	70.4
Fall 1984	ND	ND	57.9	67.6
Spring 1985	ND	ND	57.9	65.9

Note: All students in each of these study groups began college work in the fall 1979 semester. Increasing persistence rates at the end of the study are accounted for by returning stop-outs. Persistence rate is defined as the percentage of students who remained enrolled or graduated.

Table 8

COMPARATIVE GRADUATION RATES OF NATIVE UNIVERSITY AND COMMUNITY COLLEGE TRANSFER STUDENTS, FALL 1982-SPRING 1985

	Nat 1	Nat 2	CC1	CC2
Number in study group:	1,549	1,046	125	206
Percent graduating:				
Fall 1982	.7%	.3%	1.6%	2.9%
Spring 1983	31.4	30.4	17.6	25.2
Fall 1983	43.2	46.6	24.8	40.8
Spring 1984	57.8	64.7	40.0	56.3
Fall 1984	ND	ND	47.7	57.4
Spring 1985	ND	ND	54.2	59.7

Table 9

INITIAL PLANS AND MOTIVATIONS FOR ATTENDING
A COMMUNITY COLLEGE

Initial Plans:	Number	Percent of Responses
Transfer	17	70.8%
Other than transfer	1	4.2
Uncertain	6	25.0
No response	9	--
Initial major:		
Certain	4	15.4%
Uncertain	22	84.6
No response	7	--
Reason for Attending Community College [1]:		
Parents advice/mandate	2	6.3%
Financial considerations	11	34.4
Close to home	7	21.9
Not ready for university/needed transition	10	31.3
Participate in athletics	1	3.1
Recruited by CC	1	3.1
No response	5	--

[1] Numbers of respondents are not additive because some individuals provided more than one reason while others did not respond specifically to the question.

Table 10

INITIAL EXPERIENCES AT THE STATE UNIVERSITY

Difficulties Experienced First Semester at State University:	Number	Percent of Respondents
Had academic problems	24	72.7%
Had social adjustment problems	20	62.5
Had financial problems	3	9.4
Had transfer/articulation problems	18	56.3
(number of respondents = 33)		

Types of Problems Mentioned:	Number	Percent of Responses
Academic Problems:		
Not enough writing at CC	8	9.4%
Classes more difficult at univ.	13	15.3
Poor study habits	5	5.9
Large classes, aloof professor, no individual attention	5	5.9
GPA dropped	2	2.4
CC instructors not rigorous enough	1	1.2
Not prepared academically	1	1.2
Subtotal	35	41.2
Social adjustment problems:		
Socially isolated	9	10.6
Depersonalization because of large size	7	8.2
Too much partying	2	2.4
Commuting long distance	1	1.2
Inadequate housing	1	1.2
Homesick	1	1.2
Subtotal	21	24.7
Financial Problems:	3	3.5
Transfer/Articulation Problems:		
Poor advising at university	15	17.6
Poor orientation at university		
Lost credit hours	4	4.7
Subtotal	26	30.6
TOTAL RESPONSES	85	100.0%

Table 11

EVALUATION OF COMMUNITY COLLEGE EXPERIENCES AND ADVICE TO ADMINISTRATORS AND FRIENDS

How Would You Rate Your CC Experience?	Number	Percent of Responses
Excellent	4	25.0%
Good	7	43.8
Neutral	1	6.3
Poor	4	25.0
No response	17	--
Did the CC Prepare You for the State University?		
Yes	16	72.7%
No	6	27.3
No response	11	--
Would You Attend a CC again?/ Plan your education the same way?		
Yes, definitely	13	46.4%
Yes, probably	8	28.6
Uncertain	1	3.6
No	6	21.4
No response	5	--
Advice to Presidents of Community Colleges:		
Improve advising	10	50.0%
Improve quality of instruction	3	15.0
Make course/requirements more rigorous (include more writing)	7	35.0
Advice to Presidents of State Universities:		
Improve advising	23	88.5%
Improve orientation	3	11.5
What Would You Advise a Younger Friend?		
Go to the community college first	22	75.9%
Uncertain	4	13.8
Go directly to the university	3	10.3
No response	4	--
Advantage/Disadvantages of Attending Community College:		
Advantages:		
Small size, personalized attention	9	27.3
Slower pace	1	3.0
Easy to get high GPA	3	9.1
Disadvantages:		
Not enough writing required	9	27.3%
Classes not rigorous enough		
GPA will decline at university	6	18.2
Limited course offerings	2	6.1
Not required to learn good study habits	2	6.1
Attending looks bad on resume	1	3.0

Table 12

ACADEMIC CAREER PATHS OF STUDENTS INTERVIEWED

Did You Change Your Original Major?	Number	Percent of Responses
Yes	16	72.7%
No	6	27.3
No Response	11	--
Are You Graduating on Schedule (in 4 Years)?		
Yes	6	20.0%
No	24	80.0
No Response	3	--
If Not Graduating on Schedule (in 4 Years), Why Not?		
My choice/fault; took less than a full load	6	20.0%
Lost credit in transfer or because of bad advising	6	25.0
Change majors	4	16.7
Failed classes/dropped out for awhile	3	12.5
Enrolled in a 5-year program	2	8.3
No response	9	--

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